

Claims

1. Device for driving movable mechanical components (10; 12a, b, c), of which at least two (10; 12a, b, c) are dynamically connected to each other such that by means of one component (12a, b, c) the other component (10) can be driven, backlash existing between the indicated two components (10; 12a, b, c), characterized in that at least these two components (10; 12a, b, c) are moved or braced against each other by a hydraulic means (14) such that the existing play compensation between these components (10; 12a, b, c) can be eliminated.
2. The device as claimed in claim 1, wherein one mechanical component (10) is a driven wheel (36) which is provided at least partially with a driving crown gear (34) and wherein the respective other component (12a, b, c) is a drive wheel (38) which is provided at least partially with a driven crown gear (40).
3. The device as claimed in claim 2, wherein on opposing sides of the driven wheel (36) there is one drive wheel (38) each which in the opposite direction of rotation to each other with their parts on the driven crown gears (40) are engaged with the parts of the drive crown gear (34) of the driven wheel (36).
4. The device as claimed in one of claims 1 to 3, wherein the hydraulic means (14) has a first pump (46) which with a definable feed pressure pretensions parts of a hydraulic circuit to which at least one hydraulic motor (22a, b, c) is connected which is dynamically connected to the mechanical component (12a, b, c) which can be assigned to it.

5. The device as claimed in claim 4, wherein in addition to the first pump (46) another second pump (18) is connected to the hydraulic circuit which with an adjustable delivery flow is used to drive the mechanical components (10; 12a, b, c).
6. The device as claimed in claim 4 or 5, wherein the hydraulic motor (22) directly drives the driven wheel (36) or via an intermediate gear transmission (42).
7. The device as claimed in claim 5 or 6, wherein the two pumps (18, 46) can be driven by a common drive motor (16).
8. The device as claimed in claim 6 or 7, wherein between the two hydraulic motors (22) a switching valve (50) is placed in the hydraulic circuit and wherein a pressure limitation valve (54) can be connected by means of connecting points (52a, b).
9. The device as claimed in claim 8, wherein the switching valve (50) can be connected by means of another connecting line (56) to another pressure limitation valve (58) with a set pressure which is lower than the set pressure of the first pressure limitation valve (24).
10. The device as claimed in one of claims 1 to 8, wherein the hydraulic means can be supplied with a pressure medium of a definable pressure by means of an external pressure supply (62) and/or with at least one internally connected hydraulic accumulator (60) of the hydraulic circuit.
11. The device as claimed in one of claims 1 to 10, wherein the pretensioning pressure can be applied in a centralized or decentralized manner.